

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Application Review

Issue Date: XXXX XX, 2019

Region: Mooresville Regional Office
County: Alexander
NC Facility ID: 0200098
Inspector's Name: Karyn Barksdale
Date of Last Inspection: 12/05/2018
Compliance Code: 3 / Compliance - inspection

Facility Data	Permit Applicability (this application only)
<p>Applicant (Facility's Name): Piedmont Composites and Tooling, LLC</p> <p>Facility Address: Piedmont Composites and Tooling, LLC 33 Lewittes Road Taylorsville, NC 28681</p> <p>SIC: 3089 / Plastics Products, Nec NAICS: 326121 / Unlaminated Plastics Profile Shape Manufacturing</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>	<p>SIP: 15A NCAC 02D .0515, .0521, and .1806 NSPS: N/A NESHAP: 15A NCAC 02D .1111 – Subpart WWW & 15A NCAC 02Q .0317 Subpart PPPP PSD: N/A PSD Avoidance: N/A NC Toxics: 15A NCAC 02D .1100 and 02Q .0711 112(r): N/A Other:</p>

Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	<p>Application Number: 0200098.17A Date Received: 03/27/2017 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 09941/T03 Existing Permit Issue Date: 04/18/2018 Existing Permit Expiration Date: 03/21/2023</p>
David Himebaugh President (828) 632-8883 33 Lewittes Road Taylorsville, NC 28681	David Himebaugh President (828) 632-8883 33 Lewittes Road Taylorsville, NC 28681	Paul Zawila Senior Environmental Engineer (803) 366-1086 5228 Norway Lane Rock Hill, SC 29732	

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2017	---	---	27.81	---	0.3200	23.10	11.73 [Styrene]
2016	---	---	24.53	---	0.3000	19.86	11.74 [Styrene]
2015	---	---	19.63	---	0.1800	17.02	9.95 [Methyl methacrylate]
2014	---	---	19.55	---	0.1700	16.30	8.41 [Methyl methacrylate]
2013	---	---	17.11	---	0.2300	11.68	9.40 [Styrene]

<p>Review Engineer: David Hughes</p> <p>Review Engineer's Signature: _____ Date: XXXX XX, 2019</p>	<p>Comments / Recommendations:</p> <p>Issue 09941/T04 Permit Issue Date: XXXX XX, 2019 Permit Expiration Date: XXXX XX, 2024</p>
---	---

I. Purpose of Applications

Application No. 0200098.17A

This permitting action is a renewal of an existing Title V permit pursuant to 02Q .0513. The existing Title V permit (**09941T03**) was issued on **April 18, 2018**. The renewal application **0200098.17A** was received on **March 27, 2017**, or at least nine months prior to the original expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

II. Facility Description

Piedmont Composites and Tooling, LLC operates a plant in Taylorsville, Alexander County, North Carolina. The facility is a fiberglass manufacturer specializing in church steeples, baptisteries and a small number of specialized components for car dealership signs, boat parts, water slides, campers, and hospital clean rooms. The permitted equipment includes both lamination and surface coating operations and their associated dry filters for particulate control. In addition to production areas, the facility utilizes space for storage of either molds or finished products. The plant operates 10 hours per day, four days of the week (Monday through Thursday) with occasional Friday shifts.

III. History/Background/Application Chronology

January 29, 2013 – Permit No. **09941T01** issued as an initial TV permit.

February 7, 2014 – Permit No. **02567T02** issued as a TV minor modification.

March 27, 2017 – Permit Application **0200098.17A** received as a TV renewal. This application was deemed complete for processing.

March 14, 2018 – Karyn Barksdale of the Mooresville Regional Office (MRO) completed the annual compliance inspection of the facility. She states that the facility appeared to be in non-compliance with the monitoring and recordkeeping requirements for NESHAP Subpart WWWW and Subpart PPPP, specific permit conditions nos. 2.1 A.2.d.i and 2.1 B.3.b, respectively. See Section VI. NESHAP for details. The facility was issued a Notice of Violation (NOV) for these deviations on **March 26, 2018**.

April 18, 2018 – Permit No. **09941T03** issued as a TV administrative amendment. Ownership and name change.

December 5, 2018 – Karyn Barksdale of the MRO completed another compliance inspection of the facility. She states that the facility appeared to be in non-compliance again with the monitoring and recordkeeping requirements for NESHAP Subpart WWWW and Subpart PPPP, specific permit conditions nos. 2.1 A.2.d.i and 2.1 B.3.b, respectively. See Section VI. NESHAP for details. The facility was issued a Notice of Violation and Recommendation for Enforcement (NOV/NRE) on **January 4, 2019**.

January 15, 2019 - DRAFT permit sent to Permittee, Supervisor, Regional Office and Tech Services for comment. Karyn Barksdale of MRO states via e-mail on **February 4, 2019** that she has reviewed the draft permit and permit review and she had no comments on the permit but states that on her most

recent inspection, **December 5, 2018**, the facility is in the process of having an NOV/NRE. See Section VI. NESHAP for details. David Himebaugh of Piedmont replied via e-mail on **February 6, 2019** that “everything looked good and we don’t have any comments or questions.”

XXXX XX, 2019 – DRAFT permit sent to 30-day public notice and 45-day EPA review. The 30-day public comment period ended **XXXX XX, 2018** with the receipt of no comments. The 45-day EPA review period ended **XXXX XX, 2018** with the receipt of no comments.

IV. Permit Modifications/Changes and ESM Discussion

Page	Section	Description of Change
Cover letter	---	Modified to reflect current permit number, issue and effective dates
All	Header	Amended permit revision number
Attachments and Pages 1-22	Entire permit, where applicable	Modified to reflect current permit number, issue and effective dates.
Page 7	2.1 B.2.c	Updated shell language for 15A NCAC 02D .0515
Pages 9 & 10	2.1 C.2.c	Updated shell language for 15A NCAC 02D .0515
Pages 13-22	General Conditions	Updated shell conditions (v5.3, 08/21/2018)

There were no modifications to the equipment descriptions needed in Title V Equipment Editor (TVEE).

V. Regulatory Review – Emission Source Specific Limitations:

The facility is currently subject to the following regulations:

- 15A NCAC 02D .0515, Particulates from Miscellaneous Industrial Processes
- 15A NCAC 02D .0521, Control of Visible Emissions
- 15A NCAC 02D .1100, Control of Toxic Air Pollutants
- 15A NCAC 02D .1111, Maximum Achievable Control Technology (40 CFR 63, Subpart WWWW)
- 15A NCAC 02D .1806, Control and Prohibition of Odorous Emissions
- 15A NCAC 02Q .0317, Avoidance Conditions (40 CFR 63, Subpart PPPP)
- 15A NCAC 02Q .0711, Emission Rates Requiring a Permit

Further discussion of these regulations is included below and in section VI.

15A NCAC 02D .0515 “Particulates from Miscellaneous Industrial Process”

This regulation establishes an allowable emission rate for particulate matter from any stack, vent, or outlet resulting from any industrial process for which no other emission control standards are applicable. The regulation applies to Total Suspended Particulate (TSP) or PM less than 100 micrometers (µm). The allowable emission rate is calculated using the following equation:

$$E=4.10 \times P^{0.67} \quad \text{for } P < 30 \text{ tph}$$

$$E=55 \times P^{0.11} \quad \text{for } P \geq 30 \text{ tph}$$

Where: E = allowable emission rate in pounds per hour (lb/hr)
 P = process weight rate tons per hour (tph)

The facility is required to perform monthly visual inspection of the dry filter, dust collector, system ductwork, and material collection unit (ID Nos. 004 and 005), and an annual (for each 12-month period following the initial inspection) inspection of the associated ductwork noting the structural integrity and inspection of the dust collector. The results of the inspection and maintenance shall be maintained in a logbook. The logbook shall record the following: the date and time of each recorded action; the results of each inspection; the results of any maintenance performed on the dry filter and dust collector, and any variance from manufacturer’s recommendations, if any and corrections made. No reporting is required. Continued compliance with this standard is expected.

15A NCAC 02D .0521 “Control of Visible Emissions”

Visible emission (VE) standards provided in this regulation are applicable to potential VE emissions from any stack, vent, or outlet. This regulation limits visible emissions to no more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in an hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. To ensure compliance, once a month the Permittee shall observe the emissions point(s) of these sources (ID No. 004 and 005) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. The results of monitoring (inspection and maintenance) shall be maintained in a logbook. Summary reports are required to be submitted semi-annually. Continued compliance with this standard is expected.

15A NCAC 02D .1806 “Control of Odors”

The facility is currently subject to this state-enforceable only regulation that provides for the control and prohibition of objectionable odorous emissions. Continued compliance with this regulation is expected.

15A NCAC 02D .1100: “Control of Toxic Air Pollutants”

Pursuant to 15A NCAC 02D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following state-enforceable only permit limits shall not be exceeded:

Pollutant	Emission Source	Allowable Emission Rate
Styrene	Facility-wide	39.2 lb/hr

The facility is required to maintain a logbook that records the facility-wide hourly styrene emissions. The hourly rate is determined and recorded on a monthly basis. The facility is also required to report semi-annually the single highest facility-wide hourly emission rate for styrene for the previous six months.

Karyn Barksdale’s March 14, 2018 inspection report states that Facility-wide hourly emission rates were determined from the monthly logs required for MACT WWW. Once the monthly records were compiled, the facility divides the monthly styrene emissions by the number of hours worked during the month. Semi-annual reports were received on July 31, 2017 and January 30, 2018 as required. The report received January 30, 2018 indicated that the highest facility-wide hourly emission rate for styrene was 15.1 pounds per hour (2nd half of 2017). Continued compliance with this regulation is expected.

15A NCAC 02Q .0711 “Emission Rates Requiring a Permit”

Pursuant to 15A NCAC 02Q .0711 “Emission Rates Requiring a Permit,” for each of the below listed state-enforceable only toxic air pollutants (TAPs), the Permittee has made a demonstration that

actual emissions do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 02Q .0711.

TPERs Limitations				
Pollutant	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
Ethyl acetate			36	
Methyl ethyl ketone		78		22.4
Methyl isobutyl ketone		52		7.6
n-hexan		23		
Toluene		98		14.4
Xylene		57		16.4

In accordance with the approved application, the Permittee shall either (1) maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs for ethyl acetate, methyl ethyl ketone, methyl isobutyl ketone, n-hexane, toluene, and xylene, or (2) obtain a permit to emit a TAP before exceeding the TPER associated with that TAP.

Karyn Barksdale’s March 14, 2018 inspection report states the facility maintains records of the TAPs that are also categorized as HAPs (not ethyl acetate and MEK) through the monthly recordkeeping requirements for MACT Subpart WWWW and for avoidance to MACT Subpart PPPP. The ethyl acetate and MEK are tracked and reported in the Emissions Inventory. Compliance with the TPER limits were verified in the review the 2017 Emissions Inventory. Compliance with this stipulation is indicated.

VI. NSPS, NESHAPS/MACT, PSD, 112(r), CAM

NSPS

The facility is not subject to any New Source Performance Standards. This permit renewal does not affect this status.

NESHAP

15A NCAC 02D .1111 – 40 CFR 63, Subpart WWWW: NESHAP for Reinforced Plastic Composites Production

The Permittee shall comply with all applicable provisions contained in Environmental Management Commission Standard 15A NCAC 2D .1111, “Maximum Achievable Control Technology” (MACT) as promulgated in 40 CFR 63, Subpart WWWW, “National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production,” including Subpart A "General Provisions" as follows:

The Permittee shall limit its organic hazardous air pollutant (HAP) emissions from its open molding, gel-coating operations (ID No. 002) as described in 63.5805(b) and Table 3 - Subpart WWWW, which include, in part:

If your operation is...	And you use...	Your organic HAP emissions limit is...
--------------------------------	-----------------------	---

Open molding – non-corrosion-resistant and/or high strength	Mechanical resin application	88 (lb/ton)
	Filament application	188 (lb/ton)
	Manual resin application	87 (lb/ton)
Open molding – tooling	Mechanical resin application	254 (lb/ton)
	Manual resin application	157 (lb/ton)
Open molding – gel coat	Tooling gel coating	440 (lb/ton)
	White/off white pigmented gel coating	267 (lb/ton)
	All other pigmented gel coating	377 (lb/ton)
	Clear production gel coat	522 (lb/ton)

As specified in 40 CFR 63.5805(b), the Permittee must meet all applicable work practice standards in Table 4 of MACT Subpart WWWW, including:

For...	You must...
All cleaning operations	Not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin.
All HAP-containing materials storage operations	Keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.
All mixing operations	Use mixer covers with no visible gaps present in the mixing covers, except that gaps of up to one inch are permissible around the mixer shafts and any required instrumentation. Keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels.

Notice of Violation and Recommendation for Enforcement (NOV/NRE)

Specific Limitations and Conditions No. 2.1 A.2.c.i of Air Permit No. 09941T03 states in part:

The Permittee shall demonstrate that, on average, you meet the individual organic HAP emission limits for each unique combination of operation type and resin application method or gel coat type listed [in your permit] by:

- i. Grouping the process streams by operation type and resin application method or gel coat type listed [in your permit] and then calculate a weighted average emission factor based on the amounts of each individual resin or gel coat used for the last 12 months.*

Specific Limitations and Conditions No. 2.1 A.2.d.i and ii of Air Permit No. 09941T03 states in part:

The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:

- i. all data, assumptions, and calculations used to determine organic HAP emission factors including records of resin and gel coat use, organic HAP content, and operation where the resin is used. Resin use records may be based on purchase records if the Permittee can reasonably estimate how the resin is applied. The organic HAP content records may be based on MSDS or on resin specifications supplied by the resin supplier [63.5895(c)]; and*
- ii. certified statement that the Permittee is in compliance with the work practice requirements listed above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not maintained.*

In Karyn Barksdale's **March 14, 2018** inspection report she states that the monthly logs were observed from February 2017 through February 2018. The facility did not have the records for May 2017, June 2017, September 2017, October 2017, November 2017, January 2018 and February 2018 on site readily available at the time of inspection due to the recent ownership change and moving items. January 2018 and February 2018 records were received via email from Mr. Doug Claude on March 19, 2018. Semi-annual reports were received on July 31, 2017 and January 30, 2018 as required.

There were no records for May 2017, June 2017, September 2017, October 2017 and November 2017. Therefore, the facility is in non-compliance with the monitoring requirements of NESHAP Subpart WWW specific permit conditions 2.1.A.2.d.i. The facility was issued a Notice of Violation (NOV) for this deviation on March 26, 2018.

In Karyn Barksdale's **December 5, 2018** inspection report she states that the monthly logs were observed from March 2018 through November 2018. The facility did not have the records for August 2018, September 2018, October 2018, and November 2018. Semi-annual reports were received on January 30, 2018 and July 26, 2018 as required.

There were no records for August 2018, September 2018, October 2018 and November 2018. Therefore, the facility is in non-compliance with the monitoring requirements of NESHAP Subpart WWW specific permit conditions 2.1.A.2.d.i. The facility was issued a Notice of Violation and Recommendation for Enforcement (NOV/NRE) for this deviation on January 4, 2019.

This permit renewal does not affect this status.

15A NCAC 02Q .0317 – NESHAP AVOIDANCE CONDITION for Surface Coating of Plastic Parts and Products (40 CFR 63, Subpart PPPP)

In order to avoid applicability of this rule, the facility is limited to using less than 100 gallon of HAP coatings per consecutive 12-month period to coat plastic parts or products.

Notice of Violation and Recommendation for Enforcement (NOV/NRE)

Specific Limitations and Conditions No. 2.1 B.3.b of Air Permit No. 09941T03 states in part:

The Permittee shall keep records of gallons of HAP coatings that are used to coat plastic parts or products on a monthly basis to ensure compliance. The Permittee shall be deemed in non-

compliance with 15A NCAC 02D .1111 if these records are not maintained or the HAP coating usage exceeds the limits.

In Karyn Barksdale's **March 14, 2018** inspection report she states that the monthly usage and 12-month totals for HAP containing coatings were from February 2017 through February 2018. The facility did not have the records for January 2018 and February 2018 on site readily available at the time of inspection due to the recent ownership change and moving items. January 2018 and February 2018 records were received via email from Mr. Doug Claude on March 19, 2018. Semi-annual reports were received on July 31, 2017 and January 30, 2018 as required.

Because there were no records for January 2018 and February 2018 readily available during the time of the inspection the facility is in non-compliance with the monitoring/recordkeeping requirements of NESHAP Subpart P specific permit conditions 2.1.B.3.b. The facility was issued a Notice of Violation (NOV) for this deviation on March 26, 2018.

In Karyn Barksdale's **December 5, 2018** inspection report she states that the monthly logs were observed from March 2018 through November 2018. The facility did not have the records for August 2018, September 2018, October 2018, and November 2018. Semi-annual reports were received on January 30, 2018 and July 26, 2018 as required.

There were no records for August 2018, September 2018, October 2018 and November 2018. Therefore, the facility is in non-compliance with the monitoring/recordkeeping requirements of NESHAP Subpart P specific permit conditions 2.1.B.3.b. The facility was issued a Notice of Violation and Recommendation for Enforcement (NOV/NRE) for this deviation on January 4, 2019.

This permit renewal does not affect this status.

PSD

The facility is considered a minor source as the potential to emit is less than 250 tons per year. Recent actual VOC emissions have been less than 30 TPY. Alexander County has only been triggered for PSD increment tracking for SO₂. This permit renewal does not affect this status.

112(r)

The facility is not currently subject to the 112(r) "Prevention of Accidental Releases" requirements because no chemicals are stored in amounts greater than the applicability threshold of the regulation. This permit renewal does not affect this status.

CAM

40 CFR Part 64 is applicable to any pollutant-specific emission unit, if the following three conditions are met:

- the unit is subject to any (non-exempt: e.g. pre November 15, 1990, Section 111 or Section 112 standard) emission limitation or standard for the applicable regulated pollutant.
- the unit uses any control device to achieve compliance with any such emission limitation or standard.

- the unit's pre-control potential emission rate exceeds either 100 tpy (for criteria pollutants) or 10/25 tpy (for HAP's).

40 CFR 64 requires that a continuous compliance assurance monitoring plan be developed for all equipment located at a major facility, that have pre-controlled emissions above the major source threshold, and use a control device to meet an applicable standard.

The facility submitted a Compliance Assurance Monitoring (CAM) Plan (Form E6) with the renewal application. The emission sources – Laminating/gel coat operation (ID No. 002), Dry filter-type surface coating operation (ID No. 004), Sanding operations (ID No. 005) and Resin storage tank (ID No. 006) do not meet any of the three conditions mentioned above. Therefore, the facility is not subject to CAM requirements and a CAM plan is not required. This permit renewal does not affect this status.

VII. Facility Emissions Review

See Table in the header for a summary of the actual emissions as reported to DAQ from the years 2013 to 2017.

VIII. Stipulation Review

The facility was inspected by Karyn Barksdale on **March 14, 2018**. Based on her observations the facility appeared to be in compliance with their Title V permit requirements. Ms. Barksdale's last inspection was on **December 5, 2018**. Based on her observations the facility is in the process of having an NOV/NRE. See Section VI for details.

IX. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also, pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice is provided to the public under 02Q .0521. There are no affected States/area within 50 miles of this facility.

X. Conclusions, Comments, and Recommendations

A professional engineer's seal was not required for this renewal.

A zoning consistency determination was not required for this renewal.

MRO recommends issuance of the permit and was sent a DRAFT permit prior to issuance (See Section III of this document for a discussion).

RCO concurs with MRO's recommendation to issue the renewal/modified air permit.